



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR 5 — CHART INFORMATION

SECTOR 5

CHINA—SHANDONG BANDAO TO CHANG JIANG

Plan.—This sector describes the E coast of China between Chengshan Jiao, the NE extremity of Shandong Bandao, and Nanhuitsui, a point about 393 miles S, and includes the Chang Jiang River to the head of navigation. Coastal description is N to S; riverine description is inland from sea.

General Remarks

5.1 Winds—Weather.—Winds and climate conditions in general are largely determined in consequence of the seasonal fluctuation in barometric pressure occurring within the Siberian winter land. They blow between NE and NW during the winter monsoon (October through March) and SE and SW during the summer monsoon (June through August). They blow as much from one quadrant as from another during the spring transition (April and May) and the autumn transition (September).

During the winter monsoon season, wind velocity averages 17 to 21 knots over the open sea and may freshen to 28 to 33 knots. Storms are frequent in November to March. During the summer monsoon, velocity averages 4 to 10 knots. Storms are largely associated with typhoons. Calms are frequent along the coast when conditions are unsettled.

Typhoons occur between June and September, when about 20 pass close enough to influence coastal weather conditions, and reach a maximum frequency in July and August, when an average of two per year reach the coast. They enter from the SE and S and generally curve to the NE. Heavy rains caused by typhoon activity frequently induce widespread indentation of the alluvial plain bordering the river Chang Jiang.

Sea fog occurs between February and August and reaches a maximum frequency in July when it may occur everyday near the E extremity of Shandong Bando. Coastal areas become foggy with onshore winds.

Dust carried to the sea from the deserts of Mongolia may accompany winter storms and reduce visibility.

Ice.—Sea ice of no great hindrance to navigation occurs off the S side of Shandong Bando between November and April and extends as far S as the entrance to Jiaozhou Wan. Landfast ice occurs in some bays during January and February of most winters.

Tides—Currents.—Tides are mixed and show a marked inequality during maximum lunar declination, which progress from N to S.

Tidal currents are rotary offshore. They are reversing nearer shore and set W on a rising tide and E on a falling tide with a velocity reaching 1.5 knots.

Offshore ocean currents are weak and tend to set S throughout the greater part of the year. During the summer they become confused, or in August set to the N.

Aspect.—The coast of China, between Chengshan Jiao and Nanhuitsui, is distinctive by reason of the marked contrast of its features N and S of the 35th parallel of latitude at Haizhou Wan.

The coastline N of Haizhou Wan is very irregular and largely indented over a greater portion of its length by several extensive embayments, numerous large bays, and a multitude of smaller bays, coves, and inlets. Inland, the terrain consists of well-cultivated lowlands with level to rolling plains extending inland for distances from a few hundred meters to about 10 miles before encountering the slopes of a considerable network of hills and low-rising mountains which, progressing seaward, interrupt the coastline in rocky capes, low-lying headlands, and sandy promontories. Offshore, the 20m curve generally parallels the coast and tends to close salient points at distances precluding ample sea room. The near shore area within salient points, while shoaling regularly and generally offering open-sea anchorage, is much encumbered by rocks, shoals, reefs, scattered islets, kelp beds, fishing nets, fishing stakes, and fish traps. The shores of several embayments and many of the large bays are fronted by a wide margin of drying mud flats which extend well offshore.

Sea ice may be present most winters during January and February.

The coastline S of Haizhou Wan is quite regular and has but few gentle bights interrupting a general trend to the SSE. Inland the terrain is the flat, low-lying, featureless seaward portion of a vast alluvial plain extending over much of the N part of the hinterland behind the E coast of China. The plain is heavily cultivated and crossed by a plethora of waterways branching from the many rivers which interrupt the coastline throughout its length at regular intervals. Offshore, the 20m curve tends to arc well seaward for a distance of up to 85 miles and to delimit a near shore area which, though predominantly flat or sloping gently shoreward, is largely inadequately surveyed.

Chang Jiang, entered N of Nanhui Zui, is one of the major rivers of the world and the principal riverine waterway of China. Huangpu Jiang is a lesser stream entered from the S side of the estuary to Chang Jiang.

Ocean-going vessels normally proceed to Shanghai, on Huangpu Jiang, and customarily proceed to Hankou, some 575 miles up the Chang Jiang.

Regulations.—Some of the smaller harbors and anchorages on the coast of China may not necessarily be open to foreign shipping. If it is not known whether the harbor or anchorage is open, the master should contact the Chinese Harbor Superintendency Administration for permission to enter.

Off-lying Dangers

5.2 Socotra Rock (32°07'N., 125°11'E.), about 185 miles ENE of Nanhui Zui, is a patch of coral with a depth of no more than 5.5m. It lies atop a volcanic rock which rises abruptly from surrounding depths of 31 to 36m. The sea occasionally breaks and strongly setting tidal currents produce rips and overfalls.

Chengshan Jiao to Ya-Tao Chia

5.3 Chengshan Jiao (Ch'eng-shan Jiao) (Ch'en-shan Jiao) (37°24'N., 122°42'E.) is a rugged, precipitous point lying at the E extremity of the peninsula Shandong Bandao (Shantung Pantao). It rises to a conical hill about 100m high, with a storm signal station on its summit and a prominent temple on the S slope.

Information concerning the Traffic Separation Scheme and the Vessel Traffic Service off Chengshan Jiao is given in [paragraph 4.23](#).

A series of sharp conical hills, culminating in Chung Shan about 5 miles W of the point, have the appearance of islands when viewed at a distance from the SE. A light is shown 183m within Chengshan Jiao (Ch'en-shan Jiao).

Caution.—Due to frequent fog and the tide-race close off Chengshan Jiao, wrecks have been numerous and navigation requires particular attention. Fog is frequent and, close off the point, tidal rips and eddies are strong.

The coastline between Chengshan Jiao and Ya-tao Chia, about 122 miles WSW, is very irregular and much indented by numerous bays and coves which, generally separated one from another by rock-fringed, low-lying sand spits and hilly promontories, shoal gradually as they recede inland and become obstructed within their inner reaches by extensive margins of drying mud flats.

Offshore approaches are somewhat encumbered by the steep-to rocky islets. Near shore approaches are, in general, clear as far inshore as the close vicinity of the numerous spits and headlands interrupting the coast.

Fog is frequent offshore during spring and may obscure Ch'ien-li Yen, though completely absent closer inshore.

Rongcheng Wan (Jung-cheng Wan) (37°21'N., 122°38'E.), entered close SE of Chengshan Jiao, is a shoal bight backed to the N by a range of sharp conical hills and to the W by a low-lying sandy plain.

Vessels, seeking shelter from NW storms before proceeding around Chengshan Jiao, enter the bight and anchor in a depth of 18m.

Anchorage.—Some of the smaller harbors and some of the anchorages on the coast of China may not necessarily be open to foreign shipping. If it is not known whether the harbor or the anchorage is open, the master should contact the Chinese Harbor Superintendency Administration for Permission to enter.

An anchorage area has been established and marked by special buoys and beacons as shown on the chart. This area must be entered between the parallels of 37°20.8'N and 37°21.6'N, and meridians of 122°39.2'E, and 125°40.6'E. Mariners are warned not to anchor outside this anchorage area.

Foreign vessels wishing to anchor must report to Yanti Harbor Superintendency Administration (YHSA) 6 hours prior to their arrival with full details of the vessel and must report again upon arrival at the anchorage. In an emergency, the master should report as soon as the vessel intends making for the anchorage.

Smaller vessels, seeking protection from E winds, shelter in Lungshutao Kou, a cove in the NE part of the bight.

5.4 Mata Jiao (Ma-ta Chiao) (37°12'N., 122°37'E.), a flat rocky headland about 9m high, lies about 13 miles SSW of Chengshan Jiao and is joined to the mainland by a narrow neck of land. There is usually a heavy tide race about 0.8 mile NE of Mata Jiao.

Waizhe Dao (37°15'N., 122°35'E.), two small islets 39 and 33m high, lie on a reef extending from the coast about 4 miles NNW of Mata Jiao. The N island has some reddish cliffs on its N and E sides and is marked by a light.

Litao Wan, a small cove entered between the N island of Waizhe Dao and a rocky reef about 1 mile further NNW, provides shelter to small vessels seeking anchorage, in a depth of 6.4m, with the S point of the N island of Waizhe Dao bearing 100° at a distance of about 0.3 mile. The bay is open to NE winds.

Ailian Wan (37°11'N., 122°34'E.) is a small bay entered close SW of Mata Jiao. Chung Chiao, a rocky, low-lying headland, divides the bay into two shoal water coves.

Small vessels, seeking shelter from NE winds, anchor in the SW cove either W of Chung Chiao or, in a depth of 6.4m, close off the S side of the cove.

5.5 Sanggou Wan (37°06'N., 122°31'E.) is entered between Haimaozi Tou, the S entrance point of Ailun Wan, and Chu Dao, about 6 miles further S. It is a commodious shoal water bay sheltered to the N by low precipitous hills and backed elsewhere by low-lying sandy beaches rising to rounded hills. Boge Dao (Falang Shih), a group of large above-water rocks, lies about 4 miles W of Chu Dao.

Sanggou Wan affords shelter to small vessels except with E winds. However, with E winds vessels can obtain anchorage 0.8 mile NW of Chu Dao, in a depth of 7.3m, partly protected by a reef extending N from Chu Dao.

Moye Dao (36°55'N., 122°31'E.), 7 miles SSW of Chu Dao, is connected to the mainland N of it by a drying sandflat. The island is low, except for a 30m high bluff at its SW end.

Shidao Gang (36°54'N., 122°28'E.) is a small shoal bay entered close W of Moye Dao. A light is shown from the SW part of Moye Dao. Chaoyang Shan (Sharp Peak), 257m high, is a rugged hill at the head of the bay.

Vessels seeking shelter from N and NW winds anchor, in 11m in a position with the SE extremity of Moye Dao bearing 041°, distant about 0.7 mile.

Pilotage.—Pilotage is compulsory and is available 24 hours. Pilots board in the quarantine anchorage.

Anchorage.—Anchorage can also be obtained 1 to 2 miles offshore to the SW of the entrance to Shidao Gang, in depths of 14.6 to 18.3m. Small vessels seeking shelter from N winds can anchor 0.5 mile NW of the SW extremity of Moye Dao, in depths of 6.4 to 6.7m, mud. They also anchor in similar depths in a position about 1 mile N of the W entrance point of the bay.

5.6 Cha Shan (36°51'N., 122°17'E.), about 11 miles SSW of Moye Dao, is a sharp peak, 538m high, surmounted by a small temple. From the peak, a rugged range of mountains extends 3 miles E.

Sushan Dao (36°45'N., 122°15'E.), lying about 6 miles SW of Cha Shan, is marked by a light and rises to about 105m on its SE side. A number of islets and rocks lie close off its W and S sides. Above-water rocks lie up to 3 miles NNW of the is-

land. A 2.5m patch, which breaks heavily, lies about 3 miles NE of the island.

The stretch of coast between Cha Shan and Dingzihe Kou, about 65 miles WSW, is low and sandy with an occasional range of hills. Depths along it are generally less than 11m within 5 miles of the shore.

The flood current off this section of the coast flows W at 1 knot while the ebb current flows E at 1 knot. Both currents are affected by the wind.

Gulong Zui (Tau-tsui Head) (36°44'N., 121°38'E.), 31 miles WSW of Cha Shan, is the SE extremity of a bold, hilly peninsula connected to the mainland by a sandy isthmus. This hilly peninsula rises inland from the point and faces the seaward portion of the W side of the bay with a low-lying, rock fringed bluff, before falling away to the sandy beaches fronting the remainder of the bay.

Small vessels seeking shelter from N and NW winds anchor in a poor holding ground of soft mud in a position close N of Gulong Zui. NE winds send a bad sea into the anchorage.

Chanshan Tou (Cape Adkins) (36°23'N., 120°53'E.), 12 miles SW of Dingzihe Kou, is the cliffy SE extremity of a promontory and rises to a hill, 73m high. An above-water rock, 2m high, lies 1 mile S of the extremity.

5.7 Laoshan Wan (Lo Shan Bay) (36°20'N., 120°50'E.) is a large shoal-water embayment entered between Chanshan Tou, a hilly precipitous point about 43 miles WSW of Gulong Zui, and Laoshan Tao, a point about 17 miles SW. The coastline is very irregular and much indented by several bays, of which the largest and northernmost is Bei Wan (Great Bay). An extensive margin of drying mud flats front the shore of Bei Wan and the coves close to the S, before disappearing with the steep-to near shore area extending about 7 miles N from Laoshan Tou.

Laoshan Wan is much encumbered by many off-lying, steep-sided islets and by numerous sunken, drying, and above-water rocks. Nu Dao (Mau Tau) is a 72m high, grass-covered islet about 1 mile WSW of Chanshan Tou. It is joined to the E entrance point of Bei Wan by a stony ridge. Star Reef, about 1 mile NNW of Nu Dao, is a group of above-water rocks. Dong Jiao (East Reef), about 1 mile SW of Star Reef, is a sunken rock generally marked by breakers.

Vessels seeking shelter from NE winds anchor, in 9.4m, rocky bottom, in a position with the S extremity of Nu Dao bearing 086°, distant 1 mile. Small vessels can obtain shelter in a depth of 4m, about 0.3 mile NNW of Star Reef, which offers protection at LW but little shelter at HW.

Caution.—During the summer it is imprudent to anchor off the coast of Laoshan Wan as winds from ENE to SE are frequent and at times blow hard, though rarely lasting more than 12 hours.

Laoshan Tou to Dazhushan Zui

5.8 Laoshan Tou (Ya-tao Chia) (36°08'N., 120°43'E.), marked by a light and a racon, is a rugged, precipitous, point lying at the E extremity of a mountainous promontory which,

steep-sided on its S face, rises inland to Laoshan, a conspicuous 1,130m summit about 5 miles to the WNW.

The coastline between Laoshan Tou and Dazhushan Zui, about 43 miles SW, is irregular throughout and largely backed by desolate, rugged hills and low-lying mountains which reach the sea in bold headlands separated by sandy beaches and intervening areas of flat land. In the near shore area, depths of 9.2m and more are common off the principal salient points and seaward of a line joining them. Offshore, depths are irregular. Numerous steep-sided islets lie scattered well to sea.

Chaolian Dao (Chao-lien Tao) (35°54'N., 120°52'E.) is a desolate, treeless, rocky island of a yellow earthen color, rising to a summit 53m high, and lies about 16 miles SSE of Laoshan Tou.

The island constitutes the farthest seaward danger in the approaches to Qingdao. A light is shown on the summit of Chaolian Dao.

A shoal patch, with a depth of 14.7m, lies 9 miles E of Chaolian Dao Light, close S of the E-W defined route entrance. Vessels with deep draft are advised to exercise care when making a landfall in this area.

Dense fog, though absent nearer inshore, occurs about the island in spring and early summer. Tidal currents are particularly strong during spring tides and require caution when approaching the island.

Xiaogong Dao (Hsiao-kung Tao) (36°00'N., 120°35'E.) is a flat-topped, rocky islet, 35m high, lying about 10 miles SW of Laoshan Tou.

Dagong Dao (Ta-kung Tao) (35°58'N., 120°29'E.) is a readily identifiable, conical shaped island, 118m high, lying about 5 miles WSW of Xiaogong Dao. A light is shown from the summit of the island. Xaio Yu, a 43m high islet, lies about 0.4 mile WNW of Dagong Dao. A drying reef lies 1 mile W of Dagong Dao. The passage between Dagong Dao and Xaio Yu is usually obstructed by fishing stakes and nets.

Qingdao Gang (36°02'N., 120°16'E.)

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5.9 Qingdao Gang (Chingtao) (Tsingtao), the harbor for the large metropolis of Qingdao, occupies the entrance and a portion of the SE side of Jiaozhou Wan, a broad inlet extending about 12 miles inland and fed by a number of rivers. Qingdao Gang is one of China's principal ports of international trade.

The port occupies part of Jiaozhou Bay and has two sections, the inner harbor and the outer harbor. The boundary line separating the inner and the outer harbors runs from the Tuandao promontory to Jiaozishi Promontory.

On the W side of this promontory lies the inner harbor, and on the E the outer harbor.

The inner harbor lies along the shores of the Qingdao city, with three adjoining harbor basins locally known as the large, the middle, and the small harbors. Da Gang (Large Harbor), Zhong Gang (Middle Harbor), and Xiao Gang (Small Harbor), the latter two sections are used only by coasters and local craft.

The inner harbor has been extended to include the oil terminal in Huangdao and the new harbor area in the Qianwan Bay of Huangdao.

Winds—Weather

During the summer, S and SE winds are prevalent while N and NW winds occur during the winter. The port is occasionally affected by typhoons from July until September.

Fog occurs during the months of April to July, being thicker and most frequent in July.

Ice

From the end of January to the middle of February, ice is occasionally experienced in the harbor but does not affect navigation or port activities.

Tides—Currents

Tidal currents setting in Jiaozhou Bay on the flood tide and running out on the ebb tide are reported to generally attain a rate of between 2 to 3 knots, but in the entrance rates of 3 to 4 knots have been reported.

Tide rips occur off Tuandao Zui, the SW point of Tuan Dao and also the N entrance point to the Jiaozhou bay, where a light is shown.

Depths—Limitations

The channels are divided into the inner and the outer harbor channels, and the latter is the main channel with a Defined Route passage of about 22 miles. The main channel has general depths of 15m, with no obstacles, and it leads to all the harbors and to the Huangdao oil terminal. The inner channel leading to the larger harbor is 8 miles in length with depths of 9 to 30m. Vessels up to 50,000 grt can enter the port.

A vessel traffic management system is planned for this port.

The passage, from the pilot and quarantine anchorage to Mati Reef entrance, is 8 miles with depths between 9 to 30m, and it is accessible any time to ships drawing 9m. Ships drawing about 12m draft await high tide to enter the harbor.

The small harbor channel has two branches, the S and the N branch. The former is about 1 mile long, about 0.1 mile wide and 5 to 30m deep; the latter is 2 miles, 0.3 mile wide with depths of 5.5 to 1.4m.

The Huangdao oil terminal channel that circles around the Qianjiao shallow water area in the W section is 150m wide and 10 to 15m deep. The S section is about 300m wide and 12m deep.

Da Gang, charted as Big Port, is situated towards the N end of the town of Qingdao. There are eight piers, numbered 1 through 8, providing 49 berths for vessels up to 50,000 tons. Pier No. 7 is a coal terminal, while Pier No. 8 contains a container terminal and facilities for handling timber and grain.

A new container berth open, reported to have a length of 400m with depth of 14.5m.

There are reported depths of up to 11m.

There are five berths for ships of 10,000 dwt, two for ships of 5,000 dwt, and two for ships of 3,000 dwt at Lianyungang Piers. The coal berth WNW of Pier 2 is 160m long, with a depth of 9m alongside. In between Pier 2 and the coal berth a new Pier 3, similar in shape and size to Pier 2, was constructed. Piers 1 and 2 are connected to the railway system.

The NW side of Da Gang is reserved for use by naval vessels.

Coal berths for ships of 16,000 tons and 35,000 tons, together with four berths for general cargo vessels up to 25,000 tons, were completed at Miaoling, 2 miles W of Lianyungang. An approach channel to Miaoling was dredged to 12m HW.

A new port area is under construction at Xugou, 1 mile W of Miaoling, where a 6,700m long breakwater is under construction connecting the mainland at **Beiying Zui** (34°45.8'N., 119°22.1'E.) with **Jiangjia Zui** (34°46.1'N., 119°26.5'E.) on Dongxilian Dao, forming an artificial bay. Initially, the new port area will contain nine 10,000 dwt class berths. The first phase includes six berths.

Huang Dao (36°04'N., 120°14'E.) has a pier extending 0.5 mile NNW that forms an oil terminal, providing berths for two 10,000 dwt tankers, with a reported draft of 12 to 13m.

Aspect

Signal Hill (36°04'N., 120°20'E.) is 121m high and lies about 2 miles NE of Tuandao Zui. Lights, which show green above red, are shown from the signal station on its summit.

A church, with two spires about 90m high, lies about 0.5 mile WNW of Guanghai Shan. Radio masts lie about 0.8 mile NNE of Tuandao Zui.

Taiping Shan (36°04'N., 120°21'E.), close S of the S entrance to Jiaozhou Wan, is 148m high with a large radar aerial on its summit.

Pilotage

Pilotage is compulsory and available 24 hours. The pilot boards in an area with a radius of 0.3 mile centered on a position about 1.4 miles NE of Jiaozishi Zui.

Vessels should send their ETA via the agent 72 hours, 48 hours, and 24 hours prior to arriving at the pilot boarding position. The message should include the following information:

1. Time and date of arrival.
2. Salt water draft.
3. Fresh water draft.

Regulations

A Vessel Traffic Service is in operation in Jiaozhu Wan and Qingdao Gang. All foreign vessels with a pilot on board must contact Qingdao Maritime Traffic Control Center on VHF channel 8, and then transfer to a frequency assigned by the Control Center. Vessels must maintain a continuous listening watch on the assigned frequency.

Vessels must report to the Control Center the following information:

1. When passing the line joining Dondong Dao and Xiaogang Dao:
 - a. Vessel name and call sign.
 - b. Maximum draft, grt, and loa.
 - c. Last port of call.
 - d. If hazardous cargo is on board—name, quantity, and storage location.
2. When leaving port from a berth or anchorage, or when shifting a berth or anchorage:

- Vessel name.
- Time leaving berth or weighing anchor.
- Maximum draft.

The vessel's ETA at Chaolian Dao should be signaled 24 hours in advance. When abeam of Chaolian Dao, a further report should be made giving the exact time of arrival at the port, and the following:

- Vessel name and call sign.
- Maximum draft, grt, and loa.
- Last port of call.
- If hazardous cargo is on board—name, quantity, and storage location.

Signals

Berthing signals are displayed from the head of Pier No. 5 to direct vessels berthing in Da Gang and in the anchorage.

The following signals are in use at night:

Signal	Meaning
White light over green light	Vessel may enter Da Gang.
White light over red light	Vessel may leave Da Gang.

By day shapes are displayed. Vessels are not permitted to enter or leave the harbor until the appropriate signal is hoisted.

Vessels subject to quarantine inspection before berthing hoist the following signals on entering the harbor and anchor in the quarantine anchorage. The following signals are hoisted:

By day	By night	Meaning
Flag Q	Three red lights, vertically disposed	Arriving from an infected port, normal health on board.
Flags QQ	Four lights (red, red, white, red) vertically disposed	Suspicion of infection on board.
Flags QL	Four lights (red, white, red, white) vertically disposed	If death has occurred during voyage or there is a corpse on board.

Anchorage

There is a temporary anchorage area outside the harbor entrance, 2 to 3 miles E of **Xiang Zui** (36°01'N., 120°18'E.). This anchorage has reported depths of 27 to 40m, sand.

Quarantine Anchorage No. 22, about 1 mile square, is centered on a position about 2 miles NNW of Tuandao Zui, in depths of 7 to 34m, mud and sand, with good holding ground. Shallow draft vessels should anchor in its E part.

Oil Tanker Anchorage No. 23 is situated 1 mile N of the N end of Huang Dao. The anchorage is reported to have depths of 14 to 36m, mud.

Caution

Lesser depths than charted have been reported in Da Gang and its immediate approaches.

Xiang Zui to Cape Nelson

5.10 Xiang Zui (36°01'N., 120°18'E.) is the S entrance point to Qingdao Gang.

Daqiao Dao (Ta-chiao Tao), a small islet marked by a light, lies about 1 mile SE of Xiang Zui. Xiaoqiao Dao is a reef that dries about 3m, about 1 mile SW of Daqiao Dao.

Zhucha Dao (35°57'N., 120°19'E.) is an island about 35m high with a flat summit, and marked by a light on its SW side. Islets and rocks extend 0.5 mile E, while a 2m shoal lies 1 mile WNW of the island.

Haixi Bandao (35°57'N., 120°14'E.) is a peninsula extending SW from Xiang Zui to **Kaiser Point** (35°54'N., 120°10'E.), the NE entrance point to Lingshan Wan. The two extremities of the peninsula are hilly, while the middle part is low with sandy beaches separated by rocky points.

Lingshan Wan (35°50'N., 120°05'E.) is an open bay lying between Kaiser Point and an unnamed point 9 miles SW. An inlet in the NE corner of the bay provides anchorage to small vessels with local knowledge and a draft of less than 4m. It is sheltered from all but S winds.

Dazhushan Zui (35°44'N., 120°00'E.) is a high, steep-sided headland rising to a 510m summit about 5 miles to the NNW. The coastline between the point and Cape Nelson, about 260 miles SSE, first describes an indentation of considerable extent then continues regular for the remainder of its length with but few gentle bights interrupting a general trend to the SSE.

Inland, a terrain of hills and low-lying mountains declines and merges with a vast, flat, featureless plain that extends over much of the N part of the hinterland lying behind the E coast of China. The entrances to numerous shallow rivers interrupt the coastline.

Offshore, the 20m curve leaves the coast close aboard Tachushan Tsui and tends to arc well seaward for a distance of about 85 miles before closing the coast once more off the entrance to Chang Jiang. Several off-lying islands lie in the approaches to the N coastal indentation. Numerous shoals lie scattered throughout the offshore area.

Caution.—Caution is recommended when navigating a partially surveyed area which, strewn with many shoal patches of sand and hard mud, extends about 140 miles NNW of the entrance to Chang Jiang and continues offshore for a distance of about 50 miles.

5.11 Lingshan Dao (35°45'N., 120°10'E.) lies about 7 miles ENE of Dazhushan Zui. The S end of the island rises precipitously to a height of 511m, then slopes to its N extremity. A light is shown from the SW side of the island. Vessels with local knowledge can obtain anchorage on the W sides of the island.

Ligan Wan (35°42'N., 119°57'E.), about 6 miles wide, is a small bay lying between Dazhushan Zui and the N point of Zhaitang Dao, a 26m high island lying close off the mainland. A 3.7m patch, marked by a lighted buoy, lies in the approach to Ligan Wan, about 5 miles E of Zhaitang Dao.

Huangjiatang Wan (35°33'N., 119°40'E.), entered between Dongjia Kou Zui (Dongjiakou Zui) and a bluff point about 8 miles SW, is comparatively shallow. Its inner part is filled with drying mud and sandflats.

Anchorage, suitable for small craft during N and NW winds, can be obtained about 1 mile SW of Dongjia Kou Zui, in depths of 6 to 8m, mud.

A prohibited area extends offshore from a position 7 miles SSE of Dongjiakou Zui, to the shoal area of Qingshi Lan, then to the SW extremity of Haixi Bandao.

Shijiusuo (Shijiu Zui) (35°23'N., 119°34'E.), marked by a light, situated about 15 miles SW of Dongjia Kou Zui. Close W of the point. It is the biggest deep water coal terminal in China. The terminal is a pier 1,144m in length, each side of which can accommodate vessels of over 100,000 dwt. The terminal has China's most advanced coal-handling equipment, able to move 15 million tons of coal a year.

In the S end of the harbor there are two 10,000 dwt timber berths and five 10,000 dwt general cargo berths.

Range lights in line, bearing 346°, lead into Shijiusuo Harbor.

Pilotage is compulsory and is available 24 hours. The pilot boards within the Pilot and Quarantine Anchorage Area. The vessel's ETA should be sent via the agent 72 hours, 48 hours, and 24 hours prior to arriving at the pilot boarding position. The message should include the following information:

1. Time and date of arrival.
2. Salt water draft.
3. Fresh water draft.

Anchorage.—There are four designated anchorage berths, established as follows, bearing and distances from **Shijiu Light** (35°22.7'N., 119°33.5'E.).

Berth	Bearing	Distance (miles)
1	130°	5.3
2	120°	7.0
3	142°	6.8
4	131.5°	8.2

Haizhou Wan (34°55'N., 119°20'E.) is a shallow bay indenting the mainland coast between Lanshan Tou, about 19 miles SSW of Shijiu Zui, and Lianyun Gang, about 20 miles further S.

Qinshan Dao (34°52'N., 119°17'E.), a 55m high islet, lies close seaward of the extensive drying mud flats at the head of the bay.

Anchorage is available for small vessels with the summit of the island bearing 310°, distant 1 mile, in a depth of 3.7m, mud.

5.12 Lanshan (35°05'N., 119°21'E.) is a new port at Lanshantou on the N side of Haizhou Wan, approached through an unlit buoyed fairway with reported depths of 12 to 15m.

Pilotage.—Pilotage is compulsory and is available 24 hours except, as follows:

1. Large vessels—pilotage is available during daylight hours only.
2. Pilotage is suspended if wind reaches force 4-5.

The pilot boards between 3 and 5 miles SE of the berth.

Vessels should send their ETA via the agent 72 hours, 48 hours, and 24 hours prior to arriving at the pilot boarding position. The message should include the following information:

1. Time and date of arrival.
2. Salt water draft.
3. Fresh water draft.

Anchorage.—There are two designated anchorage areas that may best be seen on the chart.

Depths—Limitations.—There are two berths for small vessels up to 1,000 dwt, and two larger berths, one for vessels up to 5,000 dwt, 180m in length, 7.5m draft and one for vessels up to 20,000 dwt, 210m in length, draft 10.2m. New wharves are under construction including one berth 240m long for 50,000 dwt class ships, and a container berth 250m in length with a depth alongside of 9.5m. Tugs are available.

Caution.—It is reported that a 6.2m shoal lies approximately 30m off the 20,000 dwt berth, and as a result larger vessels berth at HW.

Cultivation areas exist in the vicinity of Lanshan Gang. Vessels should not approach the port without local knowledge.

All vessels must approach the port through the approach channel, best seen on the chart.

Lianyun Gang (Lianyun Gang) (Lien Yun Chiang) (34°44'N., 119°27'E.)

World Port Index No. 60130

5.13 Lianyun Gang is one of China's main coastal ports, a key port in international trade. It has the capacity to handle general bulk and containerized cargo. It is located on the mainland shore opposite Dongxilian Dao, a bare rocky island which, having a prominent sharp summit and a conspicuous light on its E extremity, lies close off the S side of Haizhou Wan.

Winds—Weather.—In winter and spring the prevailing winds are from the NW, while in summer and autumn, the prevailing winds are from the SE. Fog occurs in the morning from March until May.

Tides—Currents.—Tides are semidiurnal, rising 5m at springs and 4m at neaps.

Tidal currents at the harbor entrance are rotary in a counterclockwise direction. The flood current sets successively NW, W, and SW at a maximum rate of 1 knot, while the ebb current sets successively SE, E, and NNE at a maximum rate of 0.8 knot.

Within Lianyun Gang, the tidal currents are reported to be reversing, setting W through the passing on the flood tide and E on the ebb tide. During the flood tide, there are rough seas and swells at the harbor entrance.

Depths—Limitations.—Medium size ships drawing less than 9.7m can use the harbor. Those with a greater draft have to lighten ship at anchorage by discharging cargo to lighter during daylight hours.

There are 22 berths for ships of 10,000 dwt, two for ships of 5,000 dwt, and two for ships of 3,000 dwt in Lianyun Gang. The coal pier, WNW of Pier No. 3, is 160m long, with alongside depths of 8.9 to 9.1m.

Coal berths for ships of 16,000 and 35,000 tons, together with four general cargo berths for vessels up to 25,000 tons, are situated at Miaoling, 1 mile W of Lianyun Gang. An approach channel, marked by lighted buoys and range lights, has been dredged to a depth of 9m.

A new port area is under construction at Xugou, 1 mile W of Miaoling. A 6,700m long breakwater is under construction, connecting the mainland at Beiyang Zui (34° 46'N., 119° 22'E.) with Jinagjia Zui (34° 41'N., 119° 26'E.), on the W side of Dongxi Liandao, forming an artificial bay. The first phase will include six general cargo berths for vessels up to 10,000 dwt. Future construction includes two container berths and four berths for bulk or general cargo vessels.

Aspect.—On the S side of Lianyungang, there is an artificial harbor protected by two low, stone breakwaters, which are either awash or just below water. A fishing harbor, protected by a breakwater, is situated close SE of the root of the E breakwater of the artificial harbor.

A conspicuous white tower, 35m high, stands near the root of the E breakwater. Two sets of range lights lead through the entrance channel.

Pilotage.—Pilotage is compulsory for both entering and leaving the harbor, and is available at all times. Pilots board at Quarantine Anchorage No. 2 in position 34°47.3'N, 119° 34.1'E. For vessels under 5,000 gross tons, pilots board at Quarantine Anchorage No. 3, in position 34°45.3'N, 119° 31.6'E.

Vessels should send their ETA via the agent 72 hours, 48 hours, and 24 hours prior to arriving at the pilot boarding position. The message should include the following information:

1. Time and date of arrival.
2. Salt water draft.
3. Fresh water draft.

Regulations.—Vessels should report when passing Lighted Buoy No. 23 and Lighted Buoy No. 36.

Anchorage.—There are three pilot-quarantine anchorages. No. 1, with a radius of 1.5 miles, lies 11 miles ENE of Yangwo Tuo and has depths of 13 to 16m; No. 2, with a radius of 1 mile, lies 4 miles ENE of Yangwo Tuo and has depths from 7 to 9m; No. 3, for vessels less than 5,000 tons, lies with a radius of 0.5 mile 1.5 miles E of the same point, with depths of 5 to 6m.

All three anchorages are exposed and dragging may occur in winds over force 7. None of them are suitable in a typhoon and more sheltered anchorage should be sought on Qingdao, 90 miles NNE.

A tide gauge lighted beacon (black beacon, red band with topmark) lies in position 34°45.9'N, 119°35.9'E, 1 mile E of No. 2 Quarantine Anchorage.

From Lianyungang, the flat, featureless coast extends 220 miles SSE to the vicinity of Cape Nelson (Changjiangkou Beijiao) and is intersected by numerous streams. For the last 110 miles it is fronted by an unsurveyed area of changing shoals and flats which extend as much as 50 miles offshore.

Chang Jiang Approaches

5.14 Changjiang Kuo Beijiao (Cape Nelson) (31°40'N., 121°51'E.), the N entrance point of the estuary to Chang Jiang, is low. Nanhui Zui, the S entrance point, lies about 49 miles to the S. The intervening water area is largely choked by numerous low-lying, highly cultivated, well-populated islands and by a substantial series of shoals and drying flats of sand and mud which, resulting from the continued deposit of downstream, river-borne sediment, are subject to constant

change in character, position, and depth. Several channels lead through the estuary. The N lane of the estuary has a least depth of 7m. The S channel has three shoal areas with a least depth of 6m. The Huangpu River Channel has a depth of 10m up to Zhanghuabang, 8m up to Longhua, and 7m up to Minhang.

Nan Shuidao (South Channel), the principal navigable channel through the entrance to Chang Jiang, leads between the drying mud flats fronting the coastline NNW of Nanhui Zui and the numerous islets, shoals, and drying mud flats extending upstream from Tung-sha Ch'ien-t'an (Tungsha Banks), the most extensive danger in the seaward approaches to the river.

Changjiang Kou Light Vessel (31°06.1'N., 122°26.7'E.) is located about 5.5 miles S of Jigu Jiao. **Nanzhi Lanby** (30°58.4'N., 122°11.1'E.) (red hull; bell; racon) is moored in the S approach to Chang Jiang, 16 miles ENE of Nanhui Zui.

Three channels are used by shipping entering Changjiangkou. These are Nanzhi Hangdao, close to the S shore of Nan Shuidao; Nancoo Hangdao, N of Nanzhi Hangdao, in the deeper part of Nan Shuidao; and Beicao Hangdao, which passes between Jiudian Sha and Tongsha Qiantan, two extensive drying banks, and then through Bei Cao to merge with Nancoo Hangdao.

Nanzhi Hangdao is entered at Nanzhi Lanby. It is used by inbound and outbound shallow draft vessels.

Nancoo Hangdao is entered at Changjiangkou Light Vessel and is a deep water route for two-way traffic. The inbound channel lies N of the centerline and the outbound channel lies S of it. Each is 500m wide. Located at the NW end of the passage is **Jiudian Light Vessel** (31°07.6'N., 121°55.6'E). This marks the intersection with Nanzhi Hangdao.

Nancoo (31°02.7'N., 122°16.4'E.) (red hull; bell; racon) is a light float moored in the S approach to Chang Jiang 10 miles SSW of Jigu Jiao.

Beicao Hangdao is also entered at the Changjiang Kou Light Vessel. It is a deep water channel for vessels which cannot use the channels through Nan Shuidao because of their draft.

Yawosha Hangcao is a narrow part of the deep water channel that is dredged to a depth of 7.3m.

Tides—Currents.—Tidal currents in the seaward approach to Chang Jiang are rotary and turn in a clockwise direction. Rates vary from 1 knot at neaps to 4 knots at springs.

At the entrance to **Nan Shuidao** (31°02.5'N., 122°10.7'E.), the tidal currents are rotary and turn in a clockwise direction. Rates vary from 1 knot at neaps and 2 to 3 knots at springs. There is a dangerous set on to the S bank of the river from about 5 to 7 hours after HW. During strong N winds, this set persists well within Nan Shuidao.

In this same area, with fresh S winds, the tidal currents after HW set N of E much longer than in calm weather; with a fresh N wind the reverse is the case. During NE winds, the tidal currents set NW for a longer period and the water level is higher than usual; during SW winds the reverse is the case.

Within Nan Shuidao, the tidal currents become mainly reversing with only a brief period of slack water. At strength, they follow the direction of the channel.

In the narrow part of the channel (31°07'N., 122°00'E.,) the flood current attains a maximum rate of 2 knots at neaps and 3 knots at springs, while the ebb current attains a maximum rate of 3 knots at neaps and 6 knots at springs.

Between the narrow part of the channel and the entrance to Huangpu Jiang, the rates of the tidal currents tend to be less,

attaining a maximum rate of about 3 knots on the flood current and about 5 knots on the ebb current.

Depths—Limitations.—The least depth in Nan Shuidao was reported to be 4.6m. Deep draft vessels have reported touching bottom in the vicinity of 31°12'N., 121°52'E.

Vessels with a draft of 8.9m ordinarily transit Nan Shuidao at HW. Vessels with a draft of 9.4m are able to transit the channel during the HW of spring tides. A vessel was reported to have transited Nan Shuidao and to have berthed at Huangpu Jiang with a draft of 9.6m.

Vessels with a draft of less than 4.9m enter Nan Shuidao at about LW, having regard for a current set to the S and SW. Vessels with a draft greater than 4.9m arrive at the entrance 2 to 3 hours before HW so as to take advantage of a current setting to the W and NW.

Pilotage.—Pilotage is compulsory for both entering and leaving the harbor and is available 24 hours. The pilot vessel can be contacted on VHF channels 6 and 16.

The pilot boards about 0.5 mile E of Lighted Buoy No. 1. The river pilot will then board S of Baoshan Anchorage, between Lighted Buoy No. 5 and Lighted Buoy No. 6.

The pilots for deep draft vessels approaching Beicao Hangdao, Beicao Hangcao, and Nangcao Hangdao board in position 31°04'N, 122°24'E.

Regulations.—A compulsory Vessel Traffic System (VTS) is in operation; the VTS monitors all traffic on the Chang Jiang up to Huangpu Jiang. Vessels report to VTS Wusong Center on VHF channel 71 on passing the following points:

1. Changjiang Kou Light Vessel.
2. Beicau Hangdao Lighted Buoy No. 256.
3. Nangcao Hangdao Lighted Buoy No. 5.

Signals.—Inbound vessels using Beicao Hangdao should exhibit a black cylinder by day or two all round violet lights in a vertical line by night until reaching Lighted Buoy No. 270. Outbound vessels should exhibit the same signals between Lighted Buoy H46 and Lighted Buoy No. 261.

When arriving at the quarantine anchorage at night, a vessel seeking immediate clearance shall display three vertical red lights. When clearance is not required until morning, the vessel will display a red light over a white light.

Anchorage.—There are three designated anchorages in Chang Jiang Kou, the positions of which may best be seen on the appropriate chart.

Vessels, with a draft of 7.6m or less, may proceed direct to the pilot station and there anchor to await either the pilot or a favorable tide. Vessels, with a draft greater than 7.6m, proceed to a position about 1 mile NE of position 31°03'N., 122°20'E., and there anchor to await instructions. Vessels of any draft also proceed to this anchorage when they are unable to reach the pilot station at their announced ETA or when tidal conditions are generally unfavorable.

Vessels are cautioned to exercise particular care when navigating within the sea anchorages off the entrance to Chang Jiang in so far as tidal currents are rotary and imperfectly predictable and sunken wrecks or other obstructions are numerous and dangerous, especially within a radius of 5 miles E through S of position 31°03'N, 122°20'E.

Caution.—Vessels are cautioned that the prevailing winds and weather modify to a great extent the regularity of both the

times of high and LW, and the duration, direction, and rate of the tidal currents.

A dangerous wreck lies in the vicinity of the intersection of Nanzhi Hangdao and Nangcao Hangdao, in 13m of water.

Vessels are cautioned that, during periods of fog or thick weather, navigation within the estuarine approaches to Chang Jiang is accompanied with great danger in consequence of the constant shifting of shoals, the continual change in channel limits and the frequent displacement of aids to navigation.

Jigu Jiao (Chi-ku Chiao) (Amherst Rocks) (31°10'N., 122°23'E.) is a group of dark-colored, above-water rocks which are reported radar conspicuous at 9 miles, lie about 31 miles NE of Nanhui Zui and constitute the most seaward danger in the immediate approaches to Chang Jiang. The largest rock is 12m high and is marked by a light shown from a white, square concrete structure on the rocks; a racon transmits from the light structure.

Vessels are recommended to give the rocks a wide berth during nighttime and periods of poor visibility.

Shanghai (31°13'N., 121°30'E.)

World Port Index No. 59970

5.15 Shanghai, the largest and most important port in China, lies on the banks of the river Huangpu Jiang at a distance of about 12 miles from the juncture of Huangpu Jiang with the S side of the estuary to Chang Jiang. The port has a vast hinterland at its back which covers the nation's central area from E to W, and the highly-developed Yangtze River Delta and coastal area.

Winds—Weather

In the summer, winds from the SE are frequent. In the winter, winds are usually from between NW and NE. Gales from the NE, with a wind strength averaging 20 knots or more, sometimes last as long as a week during the winter. The winters are damp and temperatures sometimes fall below freezing.

During spring or autumn, sudden changes of temperature occur, often as much as 16.7°C, in a relatively short period of time. Summers are hot, especially between the middle of July and the middle of September. Typhoons can occur occasionally from July through September, although work in the harbor is rarely affected due to the shelter provided by the tall buildings of the city.

Fog occurs from October through May. It is the most frequent in December and is generally dispersed by 1000.

Ice

The port is ice-free all year round.

Tides—Currents

Tides are semidiurnal, with a range of 2.5 to 4m. In the anchorage close within the entrance to Huangpu Jiang, the flood current begins from 20 to 40 minutes after LW at springs and from 1 to 1.5 hours after LW at neaps. The ebb current

begins from 1 to 2 hours after HW at springs and from 1 to 2 hours after HW at neaps. The tidal currents start on both banks before they commence at mid-channel.

At Shanghai, under normal weather conditions, there is practically no slack water between the end of the ebb current and the start of the flood current at spring tides. Both currents attain a rate of 3 to 4 knots at springs.

At Shanghai, the flood current runs from about 2 hours after LW until about 3 hours after HW at the entrance to Huangpu Jiang. The ebb current runs the remainder of the tidal period. After heavy rains, the flood current runs from about 3 hours after LW until about 3 hours after HW at the entrance to Huangpu Jiang, and may attain a rate of 4 knots.

Depths—Limitations

The port has undergone considerable development and modernization in recent years and expansion is continuing. Several years ago, there were 15,500m (over 8.5 miles) of berthing space between Wusong and the upper limit of the harbor, with alongside depths of 8.8 to 11m, providing berthing for 98 vessels. Mooring buoys provide an additional 25 berths for ships of 25,000 tons, 28 berths for ships of 4,000 tons, and 18 berths for smaller vessels.

A loading/unloading platform, made from a 100,000 ton ore carrier, has been established near the junction of the Chang Jiang and Huangpu Jiang to permit deep draft ore and grain carriers to partially unload to reduce their draft before entering the harbor.

The port is divided into 12 work areas or districts and one passenger terminal. These areas are not in geographical sequence.

There is a container wharf, 424m long, in Work Area No. 9 on the W bank below Wusong, and another, 400m long, in Work Area No. 10 on the E bank. There are depths of 10.5m at each wharf.

Aspect

Huangpu Jiang (Whangpoo River) is an important tidal stream which, entered through extensive and periodically submerged training at Wusong Kou, wanders through the soft mud of a low, adjacent alluvial plain for a distance of about 74 miles to a juncture with Yun Ho, a lengthy inland waterway. The W or left bank is often referred to as the Shanghai side, while the E or right bank is referred to as the Pudong side.

Wusong Kou (31°23'N., 121°31'E.), the entrance to Huangpu Jiang, lies between training walls 0.4 mile apart. On the S side, the area backing the training wall has been reclaimed. On the N side, the training wall is backed by a drying flat. A conspicuous tower stands near the N entrance point of the river. Range lights in line, bearing 250°, and leading through the entrance channel, are shown from the W bank of the river, about 0.7 mile SW of the head of the N training wall.

For the first 7 miles within the entrance to Huangpu Jiang, a good deal of reclamation has taken place. This is particularly so on the W bank opposite the entrance to **Gaoqiao Gang** (31°20'N., 121°33'E.), where the river along that stretch is narrowed to 0.3 mile in places. There is a conspicuous chimney on the E bank about 1 mile above Gaoqiao Gang.

Donggou Gang (31°17'N., 121°34'E.) is a creek on the E bank, 2 miles above Gaoqiao Gang. The wharves of oil installations and the entrance to a dry dock are situated along the bank between 1 and 2 miles above Donggou Gang.

Lujiazui (31°14'N., 121°29'E.) is a point on the E bank around which the river turns sharply SE. In this vicinity and in parts of the river above this point, the width of the navigation channel is 0.3 mile or less.

The Bund is on the W bank 0.3 mile SW of Lujiazui. Along it are many fine buildings, including the Customs House, with its high clock tower.

Pilotage

Pilotage is compulsory. [See paragraph 5.14](#) for further information.

Regulations

Speed must be regulated so that no damage is done to the wharves, banks, any kind of structure, or other vessels, and reduced to a minimum when in the vicinity of vessels berthing, discharging, or loading dangerous cargo, salvaging, or dredging.

Vessels traveling against the tidal current must give way to those traveling with the current.

Vessels are prohibited to overtake another vessel in Huangpu Jiang. Meeting situations in the bends of the river should be avoided.

Vessels undergo quarantine inspections at the quarantine anchorage at the entrance to Huangpu Jiang. This inspection is not required if arriving from another Chinese port.

In very bad weather, the inspection may be postponed until the vessel has berthed, in which case the quarantine flag is flown while the vessel is proceeding in an upriver direction.

Signals

Tidal signals.—Tidal signals are displayed from a dial standing near the training wall extending from the N entrance point of Huangpu Jiang. A radial arm pointing to Arabic numerals arranged from 0 to 6 indicates the tidal rise in meters. A neon indicator shows whether a falling or rising tide.

Traffic signals.—A large red flag hoisted at the Wusong Kou signal station indicates that a large number of small craft are maneuvering within the entrance to Huangpu Jiang. This signal should be taken to mean navigate with extreme caution.

Dredge signals.—Dredges operating in the center of the river display a red flag over a black triangle during the day and three red lights, forming a triangle, at night. Pump vessels operating along the bank of the river display a red flag over a black triangle during the day, and three white lights, forming a triangle, at night.

Dredges operating on the Pudong side of the river display a red flag over a black ball during the day. At night, three lights, forming a triangle, with the apex being a white light and the base being red lights, are shown.

Dredges operating on the Shanghai side of the river display a red flag over two black balls by day. At night, three lights, forming a triangle, with the apex being a red light and the base being white lights, are shown.

Salvage vessel signals.—By day, salvage vessels display a square green flag. When working, they also display appropriate signals from the International Code of Signals and, when a diver is working below the surface, a square red flag.

At night, salvage vessels when working display a green light over a white light or, when a diver is working below the surface, two green lights displayed vertically.

Quarantine signals.—A vessel arriving at the quarantine anchorage at night seeking immediate clearance will display three red lights in a vertical line. If the vessel is not seeking clearance until the morning, a red light over a white light is displayed.

Port Signals—Shanghai	
Signal	Meaning
Flag B	Dangerous or inflammable cargo on board. At night, a red light is to be hoisted.
Flag D	Vessels entering or leaving a dockyard. At night, three lights, white, red, red, vertically disposed, are to be hoisted.
Flag G	Pilot required.
Flag H	Pilot on board.
Flag I	Fumigation officer required.
Flag L	Customs officer required.
Flag N	Harbor officers required.
Flag P	To sail soon.
Flag U	Tug required.
Flag R	Water boat required.
Flag W	Medical officer required. In case of emergency a black ball should be hoisted under the flag. At night, three lights, white, red, white, vertically disposed, should be hoisted, and one short and two long blasts on the siren or whistle should be sounded.
Flag Y	Mail on board.
Second-substitute	Ship's surveyors required.
Flags DV	Leakage on board, pumping boat required. At night, three lights, red, green, green, vertically disposed, should be hoisted.
Flags DW	Mooring sampan required. Two long blasts on the siren or whistle may also be used.
Flags FS	Ash boat required.
Flags NQ	Fire tender required. At night, three lights, green, white, red, vertically disposed, should be hoisted; also continuous whistling.

Port Signals—Shanghai	
Signal	Meaning
Flags ST	Police officers required. At night, three lights, red, white, red, vertically disposed, should be hoisted.
Flags HG	Pilot ferry boat required.
Flags TE	Vessels passing are requested to reduce speed.
Flag F below answering pennant	Ferry boat required by vessel lying outside-answering Wusong Kou. At night, two red lights, horizontally disposed.

Anchorage

Hengsha (31°18'N., 121°48'E.), situated N of the channel between Zhongsha Light Vessel and Yuanyuansha Hangcao, can be used by large vessels as a typhoon anchorage. Depths are from 9.7 to 14.5m, mud and sand bottom.

Anchorage No. 1 and Anchorage No. 2 are temporary anchorages for large vessels situated in the vicinity of 31°22'N., 121°38'E. which is about 5 miles NW of Yuanyuansha Hangcao as shown on the chart. It has depths of from less than 2 to over 19m, mud and sand bottom.

The quarantine anchorages, No. 1 and No. 2, are situated about 2.3 miles NNE of the entrance to Huangpu Jiang, and NW of the large vessels temporary anchorage.

Eleven designated anchorage areas are located NW and ESE of Huangpu Jiang and may best be seen on the chart.

Directions

The tide indicator at Wusong should be consulted to obtain the height of tide at the time of entering the river.

It was reported that the track followed by pilots indicated that considerable dredging had been carried out in the river.

From the entrance at Wusong Kou, the track within the river lies about 130m off the W bank, until abreast the Harbor Superintendent's Office (31°21.4'N., 121°29.9'E.), passing W of the lighted buoys marking the shoal water fringing the E bank. The fairway at Wusong is E of any vessel moored there, and it is advisable not to enter the river while such vessels are swung across the channel. About 1 mile upstream of the Harbor Superintendent's Office, the track is N of the lighted buoys marking the shoal bank on the SW side of the river. Then the greatest depths in the fairway lie towards the E and SE side of the river until within 1 mile of Lujiazui. Rounding Lujiazui on the flood current, especially at spring tides, requires great attention to steering.

Pilots have found that the handling of deep draft ships is facilitated by taking them up with the flood current, turning, and berthing them bows down river.

At the top of spring tides, however, it is prudent to time entry to avoid turning on the full strength of the flood current. As soon as HW has made, the strength of the stream decreases and turning can be affected with navigational safety.

A vessel, 213m in length, was reported to have turned in the harbor.

When leaving the harbor, deep draft vessels should sail at the very commencement of the flood stream, even if this entails anchoring outside Huangpu Jiang to await the next flood tide before making the passage through Nan Shuidao.

With expert local knowledge it is possible, except at neaps, to leave berths below Lujiazui on the last of the ebb current and make the passage through Nan Shuidao on the one tide.

Caution.—Submarine cables are laid across the harbor in several places. Their shore ends are usually marked by illuminated notice boards. A number of submarine cables are landed on the south side of the entrance of the Huangpu Jiang. Three submarine cables cross the river in the vicinity of the Harbor Master's Office. A submarine cable crosses the river, about 1 mile southward of Gaoquio Gang entrance. A pipeline crosses the river about 1 mile NW of the entrance of Gaoquio Gang.

The harbor is crowded with all types of native craft, from large junks to sampans. Cross river ferry traffic may be encountered about 1.4 miles upriver of Yang-ching Chiang.

The Yangpu Bridge span the Hangpu Jiang River at 31°15'N, 121°32'E, with a vertical clearance of 44m above MHWS.

5.16 Chang Jiang (Yangtze River) (31°48'N., 121°10'E.), meaning the Great River, is the largest river in China and the world's third longest river after the Amazon and the Nile. It extends 3,828 miles providing abundant water and favorable navigation systems along with the rich soil and plentiful growth of its river valleys that sustains 250 million inhabitants.

It constitutes a major commercial waterway for approximately one-half its total length. The river can be navigated with local knowledge and charts.